

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

### LISTING OF THE CLAIMS:

1-9. (Cancelled)

10. (Currently Amended) A method for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound to vaporize at least a portion of the compound;

(b) mixing the resulting vapor with a gas; in a predetermined ratio, selected to form an aerosol having a desired particle size when a stable concentration of particles in the gas is reached, wherein the ratio of vapor to gas is controlled by regulating the gas flow rate within a desired range and wherein the flow rate is monitored and heating of the compound is stopped if the flow rate is not maintained within the desired range; ~~and~~

~~—— (c) — administering the resulting aerosol to a patient.~~

11. (Previously Presented) The method of claim 10 wherein the patient is alerted with an annunciating signal if the compound is not being vaporized.

12-47. (Cancelled)

48. (Currently Amended) A method for generating an aerosol comprising the steps of:

(a) heating a physiologically active compound to vaporize at least a portion of the compound;

(b) cooling the resulting vapor by mixing the vapor with a gas, in a predetermined ratio, selected to form an aerosol having a desired particle size when a stable concentration of particles in the gas is reached; ~~and~~

~~\_\_\_\_\_ (c) administering the aerosol to a patient.~~

49-123. (Canceled)

124. (Currently Amended) A method for generating an aerosol comprising the steps of:

(a) depositing a coating comprising a physiologically active compound onto an electrically conductive mesh screen; and

(b) heating the ~~mesh screen~~ coating by passing a current across the mesh screen to vaporize at least a portion of the compound, while simultaneously passing a gas through the mesh screen thereby mixing the resulting vapor with the gas, in a predetermined ratio, selected to form an aerosol having a desired particle size when a stable concentration of particles in the gas is reached.

125. (Previously Presented) The method of claim 124 wherein the mesh screen is a single layer of stainless steel mesh.

126. (Previously Presented) The method of claim 124 wherein the mesh screen comprises a plurality of layers of mesh.

127. (Original) The method of claim 125 wherein the stainless steel mesh is 200 mesh.

128. (Previously Presented) The method of claim 124 wherein the current is supplied by the discharging of a capacitor.

129. (Previously Presented) The method of claim 124 wherein the current is passed across the mesh screen for less than about 20 milliseconds.

130. (Currently Amended) The method of claim 124 wherein ~~the current is passed across the mesh screen for between about 2 and 10 milliseconds~~ further comprising administering the resulting aerosol to a patient.

131-134. (Cancelled)

135. (Previously Presented) The method of claim 10 wherein the flow rate of the gas is regulated by the inspiration rate of the patient.

136. (Previously Presented) The method of claim 135 wherein the patient is alerted with an annunciating signal when the flow rate is not maintained within the desired range.

137. (Previously Presented) The method of claim 10 wherein the ratio of vapor to gas is additionally controlled by regulating the rate of vaporization.

138. (Previously Presented) The method of claim 137 wherein the vaporization rate is controlled by changing the energy transferred to the compound during heating.

139. (Currently Amended) The method of claim 10 further comprising ~~depositing the compound onto a substrate~~ administering the resulting aerosol to a patient.

140-180. (Cancelled)

181. (Previously Presented) The method of claim 48 wherein the ratio of vapor to gas is controlled by regulating the flow of the gas.

182. (Previously Presented) The method of claim 181 wherein the ratio of vapor to gas is additionally controlled by regulating the rate of vaporization.

183. (Previously Presented) The method of claim 48 wherein the ratio of vapor to gas is controlled by regulating the rate of vaporization.

184. (Currently Amended) The method of claim 48 further comprising the step of depositing a coating comprising the compound onto a substrate before step (a).

185. (Currently Amended) The method of claim 184 wherein the depositing a coating comprises further comprising passing the gas across the surface of the compound dissolving the compound in an organic solvent, applying the solution to all or a portion of the substrate and allowing the solvent to evaporate.

186. (Previously Presented) The method of claim 48 wherein the particle size is between about 1 to 3 microns.

187. (Previously Presented) The method of claim 48 wherein the particle size is between about 10 to 100 nanometers.

188. (Previously Presented) The method of claim 48 wherein the gas is air.

189. (Previously Presented) The method of claim 48 wherein the compound is selected from the group consisting of cannabinoid extracts from cannabis, THC, ketorolac, fentanyl, morphine, testosterone, ibuprofen, codeine, nicotine, Vitamin A, Vitamin E acetate, Vitamin E, nitroglycerin, pilocarpine, mescaline, testosterone enanthate, menthol, phencaramide, methsuximide, eptastigmine, promethazine, procaine, retinol, lidocaine, trimeprazine, isosorbide dinitrate, timolol, methyprylon, etamiphyllin, propoxyphene, salmetrol, vitamin E succinate, methadone, oxprenolol, isoproterenol bitartrate, etaqualone, Vitamin D3, ethambutol, ritodrine, omoconazole, cocaine, lomustine, ketamine, ketoprofen, cilazaprol, propranolol, sufentanil, metaproterenol, pentoxapylline, captopril, loxapine, cyproheptidine, carvediol, trihexylphenadine, alprostadil, melatonin, testosterone propionate, valproic acid, acebutolol, terbutaline, diazepam, topiramate, pentobarbital, alfentanil HCl, papaverine, nicergoline, fluconazole, zafirlukast, testosterone acetate, droperidol, atenolol, metoclopramide, enalapril, albuterol, ketotifen, isoproterenol, amidarone HCl, zileuton, midazolam, oxycodone, cilostazol, propofol, nabilone, gabapentin, famotidine, lorezepam, naltrexone, acetaminophen, sumatriptan,

bitolterol, nifedipine, phenobarbital, phentolamine, 13-cis retinoic acid, droprenilamine HCl, amlodipine, caffeine, zopiclone, tramadol HCl, pirbuterol, naloxone, meperidine HCl, trimethobenzamide, nalmefene, scopolamine, sildenafil, carbamazepine, procaterol HCl, methysergide, glutathione, olanzapine, zolpidem, levorphanol, buspirone and mixtures thereof.

190. (Previously Presented) The method of claim 48 wherein the compound to be delivered to the patient is vaporized over a period of time no greater than about 2 seconds.

191. (Currently Amended) The method of claim ~~190~~ 184 wherein the ~~period of time is between 1 millisecond and 2 seconds~~ mixing comprises passing the gas across the surface of the coating.

192-197. (Cancelled)

198. (New) The method of claim 48, further comprising administering the resulting aerosol to a patient.

199. (New) A method for generating an aerosol comprising the steps of:

- (a) depositing a coating comprising a therapeutic amount of a physiologically active compound onto a substrate;
- (b) heating the coating to vaporize at least a portion of the compound;
- (c) cooling the resulting vapor by mixing the vapor with a gas in a predetermined ratio, selected to form an aerosol having a desired particle size when a stable concentration of particles in the gas is reached.

200. (New) The method of claim 199 wherein the ratio of vapor to gas is controlled by regulating the flow of the gas.

201. (New) The method of claim 200 wherein the ratio of vapor to gas is additionally controlled by regulating the rate of vaporization.

202. (New) The method of claim 199 wherein the ratio of vapor to gas is controlled by regulating the rate of vaporization.

203. (New) The method of claim 199 wherein the depositing a coating comprises dissolving the compound in an organic solvent, applying the solution to all or a portion of the substrate and allowing the solvent to evaporate.

204. (New) The method of claim 199 wherein the particle size is between about 1 to 3 microns.

205. (New) The method of claim 199 wherein the particle size is between about 10 to 100 nanometers.

206. (New) The method of claim 199 wherein the gas is air.

207. (New) The method of claim 199 wherein the compound to be delivered to the patient is vaporized over a period of time no greater than about 2 seconds.

208. (New) The method of claim 199 wherein the mixing comprises passing the gas across the surface of the coating.

209. (New) The method of claim 199, further comprising administering the resulting aerosol to a patient.